Electronic housing **960** includes processor **2266** (or control and communications board) and lamp driver circuit **2280**. The lamp housing **970** includes fan **2270**, motor **950**, substrate **912**, and variable filter **1913**.

The variable filter **1913** in the state shown by FIG. **12**A causes the concentration of light **927***a* from for example LED **912***a* to come out of the filter in the same direction as shown by arrow **1913***a*. As in FIG. **12**B the light emitted by the LED **912**A may be diffused by the variable filter **1913**. For simplicity the connecting wires that supply the signal to vary the filter are not shown.

The electronic housing **960** that may be the base of the multiparameter light may also house the various power supplies and control circuits. In FIG. **12**C the electronic housing **960** is connected to the lamp housing **970** by means of a bearing assembly **2264**. The bearing assembly **2264** is shown simplified. The control circuit supply wires **2282** for the plurality of light sources, such as **912***a*, is sent from the lamp driver circuit **2280** through the bearing assembly **2264**. The fan **2270** is connected via power supply wires **2268** to a fan control circuit located on the control and communications board **2266**. Not all the wiring that passes through the bearing assembly **2264** is shown for the sake of simplicity. One bearing assembly **2264** is shown for simplicity however multiple bearing assemblies are commonly used to allow the lamp housing **970** to pan and tilt in relation to the electronic housing **960**. Motors (not shown) are used as in the prior art to remotely control the position of the lamp housing **970** in relation to the electronic housing **960**.

A control signal is applied to the communications board **2266** via communications line **2295**. The communications board **2266** may provide a signal to the control circuit **2280** via communications line **2290** that provides information as to how the plurality of light sources such as **912***a* may be controlled as well as supply control information to the filter **1913** via control wires (not shown). The control circuit **2280** may receive power from a power source via wires **2294**. The power source may be any suitable means of supplying electricity.

Within the lamp housing **970**, a motor **950** is shown that provides the mechanical means to deform the substrate **912** that houses the LEDs **912***a*. The motor control wires are not shown for simplicity. The substrate **912** is constructed with strategically placed ventilation holes such as those shown in FIG. **9**A and **9**B. Cooling air **2276**, **2272***a*, and **2272***b* is moved through the fan **970**, the ventilation holes in substrate **912**, and the ventilation ports **2274***a* and **2274***b*. The airflow may be exhausted by the fan or the fan may pressurize the lamp housing to exhaust the air through ports **2274***a* and **2274***b*.

In FIG. **12**C the plurality of light sources i.e. LEDs **912***a*, may be controlled directly by the control circuit **2280** as shown. A control circuit may also be fixed on to the flexible substrate **912** and a communications node also fixed to the substrate **912**, may receive control communications directed by the communications processor board **2266** or communications from the control circuit **2280**. Each of the LEDs **912***a* may be individually controlled by the control circuit **2280**. The control circuit **2280** may control a plurality of parameters of each LED such as the intensity and on-off parameters of each LED of LEDs **912***a*.

I claim:

1. An apparatus comprising:

a flexible substrate to which a plurality of light sources are fixed;

a flexible substrate housing in which the flexible substrate is located;

wherein the flexible substrate is comprised of a peripheral region and a center region;

and further comprising a flexing device for flexing the flexible substrate by applying pressure to the center region of the flexible substrate to cause the flexible substrate to deform;

and wherein in a first state when the flexible substrate is not deformed by the flexing device, each of the plurality of light sources emits light which is concentrated in a first direction;

and wherein in a second state when the flexible substrate has been deformed by the flexing device, at least one of the plurality of light sources emits light which is concentrated in a second direction which differs from the first direction; and

wherein the flexible substrate housing is comprised of a removable holder and a case;

wherein the flexing device is comprised of the removable holder and the case;

and wherein the removable holder can be connected onto the case; and

and wherein the connecting of the removable holder onto the case can cause the flexible substrate to deform.

2. The apparatus of claim **1** and wherein

the removable holder can be connected to the case by variably tightening the removable holder to the case to thereby apply a variable amount of pressure to the flexible substrate and a corresponding variable amount of deformation of the flexible substrate.

3. The apparatus of claim **2** wherein

the removable holder when tightened causes the center region of the flexible substrate to be forced upwards by a surface of a battery.

4. The apparatus of claim **3** wherein

the removable holder when screwed tightly causes the center region of the flexible substrate to be forced upwards by a terminal of a battery.

5. The apparatus of claim **1** and wherein

the removable holder is in the form of a cover and the case is in the form of a flashlight case.

6. An apparatus comprising:

a flexible substrate to which a plurality of light sources are fixed;

a flexible substrate housing in which the flexible substrate is located;

wherein the flexible substrate is comprised of a peripheral region and a center region;

and further comprising a flexing device for flexing the substrate by applying pressure to the center region of the flexible substrate to cause the flexible substrate to deform;

wherein in a first state when the flexible substrate is not deformed by the flexing device each of the plurality of light sources emits light which is concentrated in a first direction;

wherein in a second state when the flexible substrate has been deformed by the flexing device at least one of the plurality of light sources emits light which is concentrated in a second direction which differs from the first direction;

and wherein the flexible substrate is comprised of a center electrical terminal located at the center region of the flexible substrate and wherein the flexing device makes electrical contact with the center electrical terminal of the flexible substrate when the flexing device applies pressure to the center region of the flexible substrate.

7. The apparatus of claim 6 wherein

each light source on the flexible substrate has a first terminal and a second terminal,

and each first and second terminal is electrically connected to its own first and second conductive material on the flexible substrate, respectively;

wherein the first conductive materials for all the light sources are electrically connected to a center conductive material on the flexible substrate;

wherein the second conductive materials for all the light sources are electrically connected to a peripheral conductive material on the flexible substrate;

and wherein by applying a positive terminal of a signal source to the center conductive material and by applying a negative terminal of the signal source to the peripheral conductive material, the plurality of light sources can be turned on.

8. The apparatus of claim 6 wherein

each light source on the flexible substrate has a first terminal and a second terminal,

and each first and second terminal is electrically connected to its own first and second conductive material on the flexible substrate, respectively;

wherein the first conductive materials for all the light sources are electrically connected to a center conductive material on the flexible substrate;

wherein the second conductive materials for all the light sources are electrically connected to its own separate distinct peripheral conductive material on the flexible substrate;

and wherein by applying a positive terminal of a signal source to the center conductive material and by applying a negative terminal of the signal source to the appropriate peripheral conductive material, a particular light source can be turned on.

9. The apparatus of claim 6 wherein

the plurality of light sources are light emitting diodes.

10. An apparatus comprising:

a flexible substrate to which a plurality of light sources are fixed;

a flexible substrate housing in which the flexible substrate is located;

wherein the flexible substrate is comprised of a peripheral region and a center region;

and further comprising a flexing device for flexing the substrate by applying pressure to the center region of the flexible substrate to cause the flexible substrate to deform;

wherein the flexible substrate housing applies pressure to the peripheral region of the flexible substrate in a substantially opposite direction to the pressure being applied to the center region and while pressure is being applied to the center region of the flexible substrate;

and wherein in a first state when the flexible substrate is not deformed by the flexing device each of the plurality of light sources emits light which is concentrated in a first direction;

and wherein in a second state when the flexible substrate has been bent by the flexing device at least one of the plurality of light sources emits light which is concentrated in a second direction which differs from the first direction; and

wherein the flexing device is comprised of a battery having a first terminal, wherein the first terminal of the battery applies pressure to the center region of the flexible substrate to cause the flexible substrate to deform.

11. An apparatus comprising:

a flexible substrate to which a plurality of light sources are fixed;

a flexible substrate housing in which the flexible substrate is located;

wherein the flexible substrate is comprised of a peripheral region and a center region;

and further comprising a flexing device for flexing the substrate by applying pressure to the center region of the flexible substrate to cause the flexible substrate to deform;

and wherein in a first state when the flexible substrate is not deformed by the flexing device, each of the plurality of light sources emits light which is concentrated in a first direction;

and wherein in a second state when the flexible substrate has been bent by the flexing device at least one of the plurality of light sources emits light which is concentrated in a second direction which differs from the first direction;

wherein each light source on the flexible substrate has a first terminal and a second terminal, each first and second terminal is electrically connected to its own first and second conductive material on the flexible substrate, respectively;

wherein the first conductive materials for all the light sources are electrically connected to a center conductive material on the flexible substrate;

wherein the second conductive materials for all the light sources are electrically connected to a peripheral conductive material on the flexible substrate;

and wherein by applying a positive terminal of a signal source to the center conductive material and by applying a negative terminal of the signal source to the peripheral conductive material, the plurality of light sources can be turned on.

12. An apparatus comprising:

a flexible substrate to which a plurality of light sources are fixed;

a flexible substrate housing in which the flexible substrate is located;

wherein the flexible substrate is comprised of a first region and a second region;

and further comprising a flexing device for flexing the substrate by applying pressure in a first direction to the

second region of the flexible substrate and simultaneously applying pressure in a second direction to the first region of the flexible substrate, wherein the first direction is substantially opposite the second direction, to cause the flexible substrate to deform;

and wherein in a first state when the flexible substrate is not deformed by the flexing device each of the plurality of light sources emits light which is concentrated in a third direction;

and wherein in a second state when the flexible substrate has been deformed by the flexing device at least one of the plurality of light sources emits light which is concentrated in a fourth direction which differs from the third direction; and

wherein the flexible substrate housing is comprised of a removable holder and a case;

wherein the flexing device is comprised of the removable holder and the case;

and wherein the removable holder can be connected to the case; and

and wherein the connecting of the removable holder onto the case can cause the flexible substrate to deform.

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